



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,251	11/20/2001	Wilhelmus Hendrikus Alfonsus Bruls	PHNL 000655	9628

24737 7590 05/06/2005

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

CATHEY II, PATRICK H

ART UNIT	PAPER NUMBER
----------	--------------

2613

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/989,251

Applicant(s)

BRULS ET AL.

Examiner

Patrick H. Cathey II

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Art Unit: 2613

DETAILED ACTION

The drawings were received on January 3, 2005. The examiner accepts these drawings.

Response to Amendment

The amendment filed on January 3, 2005 under 37 CFR 1.131 has been considered but is ineffective to overcome the Faroudja reference. Faroudja teaches using the MPEG standard (Column 4, lines 16-25) as well as being compatible with multiple standards (Column 2, lines 20-37). Faroudja also teaches the obtained decoded video signal as having a low bit rate signal (Column 5, lines 27-46). This low bit rate signal is stated in the Remarks as being an example of the SIF input format.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim's 1, 2, 7, 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Faroudja (US 5,754,248).

As for Claim's 1, 2, 7 and 8, Faroudja teaches decoding the compressed encoded SIF video signal to obtain a decoded video signal (Column 5, lines 27-

Art Unit: 2613

46), the output of a decoder being applied to a video line multiplier (58) (Column 12, lines 33-37; See also Figure 15). The vertical non-linear enhancer (60) then spectrally expands the line-multiplied signal in the vertical domain (Column 12, lines 44-46; See also Figure 15). The vertical non-linear enhancer is applied to a frame multiplier (62) prior to display (Column 13, lines 57-65; See also Figure 15).

As for Claim 10, Faroudja teaches a recording and transmitting system (Column 2, lines 19-38). This recording and transmitting system is used with the limitations discussed in the above rejections

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim's 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faroudja.

Faroudja teaches vertically enhancing the image. He also shows that the degree of vertical spectral expansion should be correlated with the amount of increase in the line rate (Column 12, lines 56-58). This shows that by increasing the number of lines during the spatial up-conversion is the same idea as vertically up-converting the lines of the image. Although Faroudja fails to

Art Unit: 2613

specifically teach that horizontal spatial up-conversion is after the temporal up-conversion, note that this is within the level of one of ordinary skill. Faroudja teaches both size and frame rate changes can happen in any order. Further, once the horizontal spatial up-conversion is increased, the time between vertical sync increases thus making the temporal up-conversion more difficult (Column 12, line 60 to Column 13, line 14). Therefore it would have been obvious to one of ordinary skill to do the horizontal spatial up-conversion after the temporal up-conversion to reduce the processing loads.

Claim's 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faroudja in view of He et al. (US 6,600,517).

Although Faroudja fails to specifically teach the use of edge enhancement that is carried out by peak filtering by a spread of pixel values, He et al. does. He et al. teaches that the output of the decoder used in his invention is transferred to a post processing circuitry for additional processing (Column 4, lines 58-63; See also Figure 1). The post processing circuitry enhances or steepens the edge transition (Column 5, lines 23-25). This is achieved by two techniques: 1) increasing or decreasing pixel values on either side of the edge center; and 2) replacing pixels close to the edge center with pixels away from the edge center (Column 5, lines 26-31). Since this method of enhancement is just sharpening the edges of the image it would have been obvious to one of ordinary skill to apply a form of edge enhancement to sharpen the edges of the images for additional clarity.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Additional references were cited further showing the SIF input format.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick H. Cathey II whose telephone number is (571)272-7326. The examiner can normally be reached on M-F 7:30 to 5:00 (Every other Friday off).


Art Unit: 2613

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571)272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick H. Cathey II
Examiner
Art Unit 2613

PHC


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600